

Selected Portions of the United States Army Corp of Engineers Sign Standards Manual

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This document is available as publication EP 310-1-6A and EP 310-1-6B (two volumes) and is available at no cost. Contact the USACE via its web site (see section VI.B) to request these documents. Make sure to request all updates when ordering this document, as there have been several updates to the manual.

(Note: Numbers/letters in parentheses indicate the original section in the USACE manual)

The Corps of Engineers sign system has been designed using a selected group of common graphic elements and visual standards. These graphic elements include: the Corps Signature for agency identification, color standards for each type of sign, three weights of the Helvetica typeface for the lettering on sign faces, specifications for letter- and word-spacing, the visual relationship of sign legend to sign panel size, recommended viewing distances for each size of legend typography (page 2.6), and sign placement guidelines (page 2.8-9).

These standards become the graphic building blocks around which the signs are designed. They have been adopted because they provide a functional base for the graphic format of each sign. These design standards also become one of the visual threads common to the design of each sign in the system.

This section defines the common graphic elements and visual standards and describes how they are to be used. These standards incorporate the principles contained in the U.S. Army Corps of Engineers *Graphic Standards Manual*. Each standard, however, has been adapted for application to signage.

Contact the coordinator for advice and assistance concerning specialized or unique applications of these Corps design standards as they are applied to signs.

The U.S. Army Corps of Engineers Signature is the key graphic element used to identify the Corps to the public. The Signature consists of the Mark and the Corps of Engineers name set in Helvetica Medium typeface. Both elements are placed flush left.

In applications to signage, the Signature

is to be used only on signs where Corps identification is important and integral to the message being communicated. This use is limited to: project identification, boundary (ownership), construction, and Corps Participation Credit signs. Each of these examples is shown in its respective section of this manual.

The two basic forms of the Signature

are shown below. The positive version (top) is used on signs with a white or light tone background. The reverse version is used on signs where the Signature is placed on a dark background.

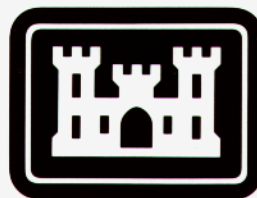
Refer to the *Graphic Standards Manual* for a complete description of the Mark and Signature.

The form of the Mark is derived from the traditional Castle symbol used by the Corps since its inception.

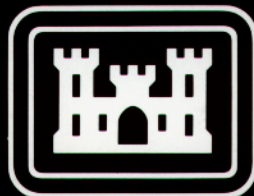
The Mark has been redesigned for greater strength and adaptability, both visually and for reproduction purposes. In its new form, the Mark is a simplified contemporary rendering of the traditional symbol.

Do not place the Corps Mark or Signature on directional, recreation area, informational, safety, or waterway guide signs. Indiscriminate use of the Signature only dilutes the primary communicative intent of the sign on which it is placed.

No District, Division or other field-operating activity names are to be added to the basic Corps Signature when used on signs.



**US Army Corps
of Engineers**



**US Army Corps
of Engineers**

The illustrations below show the various color configurations possible when using the Corps Signature on signs. Note that there are fewer possible ways to render the Signature on a sign panel than are specified for print applications (see *Graphic Standards Manual*, pages 1-5).

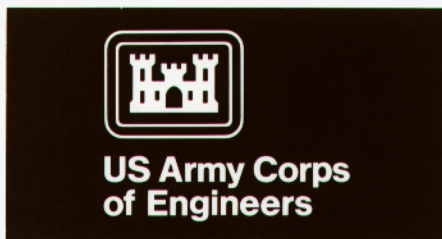
a) The most prominent use of the signature will be on identification signs. For Standard Identification, post and panel signs, the reverse Signature is used; the Mark is Communication Red, the Signature type is white.



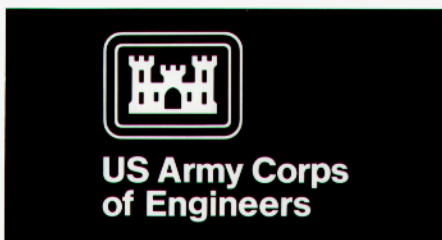
b) For large-scale Standard Identification signs of individual letter-forms, the positive version is used; both the Mark and Signature type are Communication Red (see page 5.7).



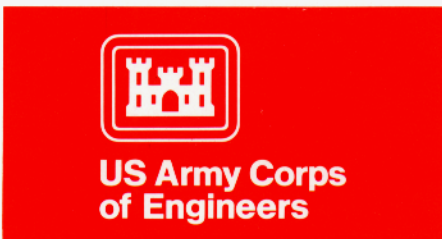
c) The Corps Participation Credit sign uses an all white reverse Signature on a Corps Brown background.



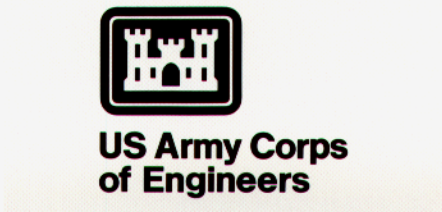
d) The header panels on Building Office Directories use a reverse Signature in white on black.



e) Construction Project signs use an all white reverse Signature on a Communication Red background.



f) Boundary signs use the positive Signature in black on a white background.



A 4" positive version of the Corps of Engineers Communication Mark/Signature is shown on the inside of this foldout. This artwork has been prepared for applications to signage only and is not intended for other applications.

Some notes to remember when using the Mark:

- Reproduce art for signs using a distortion-free photo-mechanical process. Do not re-size the art by hand.
- Enlarge or reduce the Mark as a complete unit. Do not re-assemble as parts.

A 4" reverse version of the Corps of Engineers Communication Mark/Signature is shown on the inside of this foldout. This artwork has been prepared for applications to signage only and is not intended for other applications.

Some notes to remember when using the Mark:

- Reproduce art for signs using a distortion-free photo-mechanical process. Do not re-size the art by hand.
- Enlarge or reduce the Mark as a complete unit. Do not re-assemble as parts.

Within the Corps of Engineers sign system there are five standard color palettes. Three have been developed by the Corps and include: 1) recreation area signs, 2) lock, dam and waterway signs, and 3) building interior signs. Two color groups have been adopted from existing standards: 1) traffic signs (MUTCD) and 2) industrial safety signs (ANSI). Each of these is illustrated on the following pages with descriptions for their use. The two-character color code is in parentheses immediately after the color. Additional color application instructions are included in each respective chapter.

Colors must conform to the standards presented on the following pages when preparing signs.

Shown below are the colors for use on Corps identification, directional, and recreation area signs.

Corps Brown is used for all routed redwood signs and is similar to the color created in the natural weathering process. This color is available in paint and reflective

sheeting for signs not made from routed redwood. The legend color is White.

Color reference numbers are provided in Appendix B, Materials and Specifications.

Corps Brown (BR): Background for Identification, Directional, Recreation, and Symbol Signs.

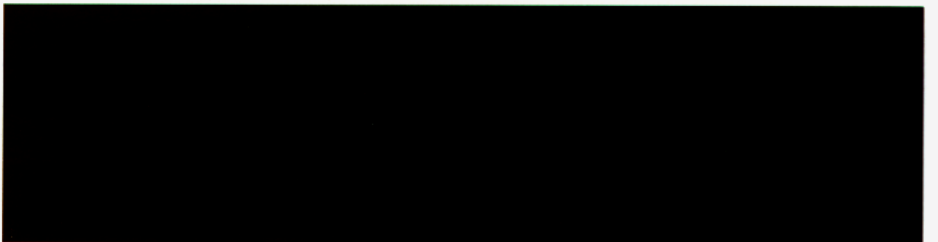


White (WH): Legend for Identification, Directional, and Recreation Signs. Background for Boundary Signs.

Communication Red (CR): Corps Mark (Castle) on Identification Signs.



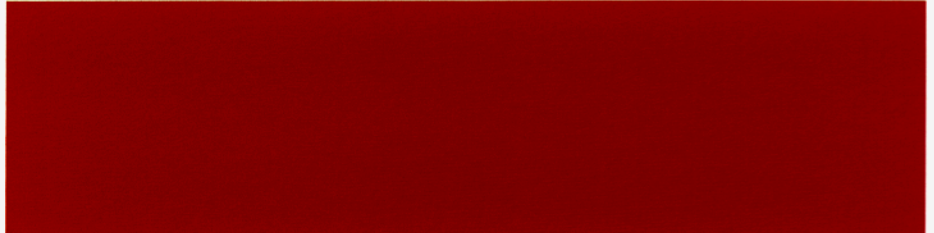
Black (BK): Legend and Signature for Boundary Signs.



The colors shown below are adopted from the *Manual on Uniform Traffic Control Devices* (MUTCD), Section 2A-11, for use on signs within the right-of-way of all classes of public highways. Adjacent to the color display is a description of the sign type on which it is used. Colors should conform to the limits as specified in Federal Specification FP-85, Section 718.01 or LS-300C,

paragraph 3.6-3.641. Central values and tolerance limits for each color are available from the FHWA, HTO-20, Washington, D.C. 20590. Refer to Section 9 for a description of the standard types of traffic signs used on Corps projects.

Red (RD): Background for Danger Signs (Stop, Do Not Enter, Wrong Way, Yield, etc.). Circle and Slash on Prohibition and No Parking Signs.



Yellow (YL): Background for warning/road hazard signs.



Orange (OR): Background for construction and maintenance warning signs.



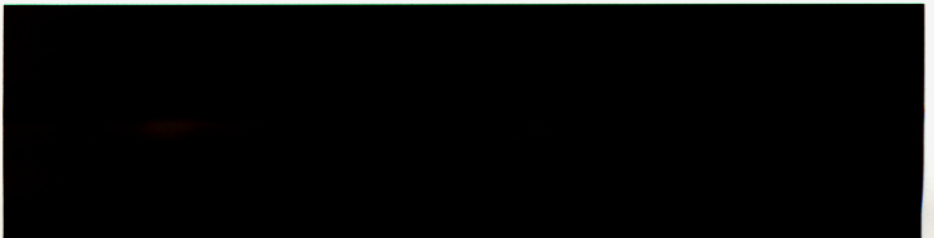
Green (GR): Background for guidance and directional signs. Circle around "P" of Parking sign.



White (WH): Legend for danger, guidance, and information signs. Background for regulation signs.



Black (BK): Legend for warning and regulation signs.



The colors shown below are used on all safety signs as described in Section 11 of this manual. These safety colors are used when marking physical hazards. They are adopted from the following standards: *American National Standard Specifications for Accident Prevention Signs* (ANSI-235-1-1972), *Occupational Safety and Health*

Administration Standards (29-CFR-1910), and the *U.S. Army Safety Color Code Markings and Signs* (AR-385-30).

Safety Red (SR): Federal Standard Color 11120. Danger; warning of an immediate hazard.



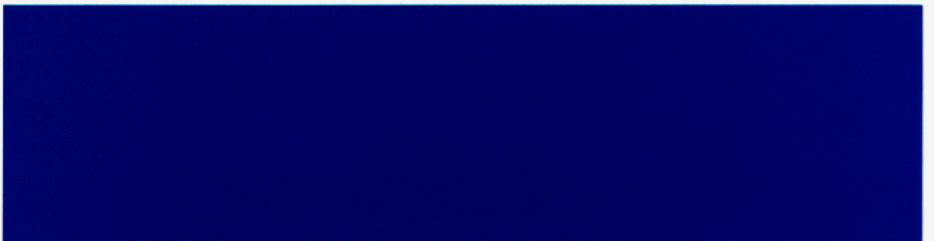
Safety Yellow (SY): Federal Standard Color 13591. Caution; warning of potential hazard.



Safety Green (SG): Federal Standard Color 14120. Notice; for safety.



Safety Blue (SB): Federal Standard Color 15092. Information; general.



Black (SK): Federal Standard Color 17038. Directional and all descriptive legends.



White (SW): Federal Standard Color 27875. All sign backgrounds, except for Caution.

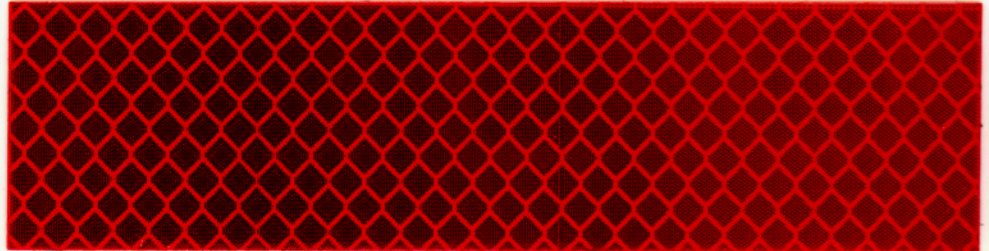


This color group has been developed for all waterway safety and information signs placed around locks and dams, on jetties and breakwaters, and to mark orientation points on lakes. Specifications and illustrations for their use are shown in Section 14 of this manual.

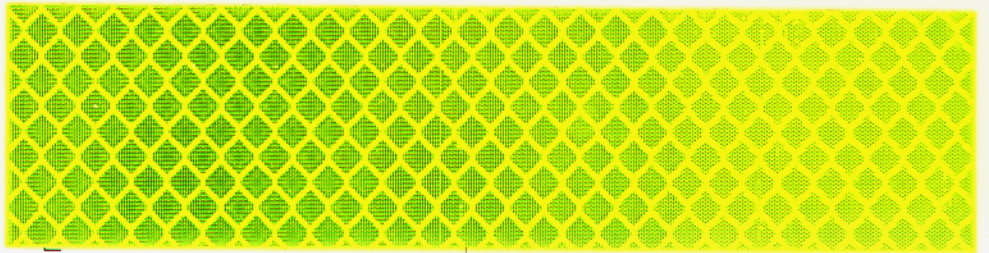
Color shall conform to the chromaticity coordinates as specified by the U.S. Army Corps of Engineers. Color reference numbers are available from the National Sign Program Manager. Material specifications are provided on page B.13c-d. Recommended material product numbers are provided in Appendix B.

Lock dam and waterway signs are used in conjunction with the *Aids to Navigation Marking System* (U.S. Coast Guard).

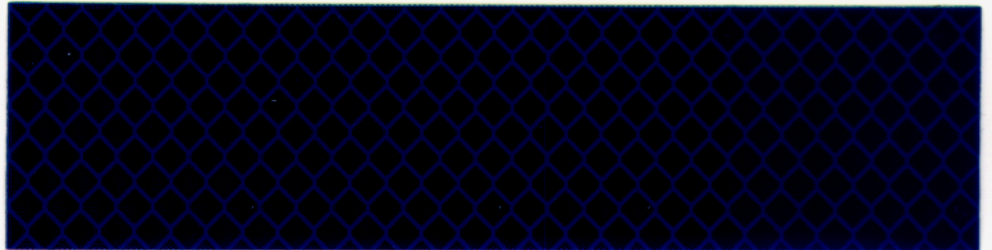
Red (RD): Background for Danger and Restricted signs; (Diamond Grade Sheeting 3972) denoting an immediate hazard, and identification of restricted areas.



Lemon Yellow (LY): Background for Warning and Caution signs; (Diamond Grade Sheeting 3923) warning of potential hazards.

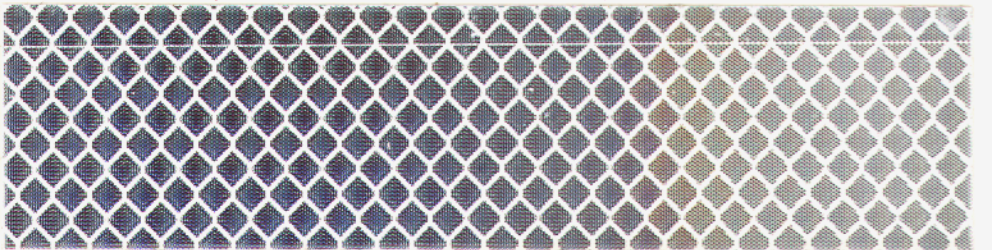


Medium Blue (MD): Legend for Lock Information/Instruction signs; (Diamond Grade Sheeting 3975) identifies arrival point, locking procedures, and general lock use information.



Alternate figure and field color (with white) for Lake Mile Markers and Lake Symbol Guide Signs.

White (WH): Background for Lock Information Instruction signs. (Diamond Grade Sheeting 3970)



Legend for Danger and Restricted signs.

Black (BK): Legend for Warning and Caution signs.



Three different weights of the Helvetica typeface have been adopted as the standard letter-style to be used on all Corps signs. These include Helvetica Bold, Helvetica Medium, and Helvetica Regular. These alphabets were selected because they are highly legible, contemporary in character, and readily available to manufacturers preparing signs for the Corps.

Shown below is a full upper/lower case display for each weight of the Helvetica letter-style. The comparative diagram on the following page illustrates the designated applications of each different weight. Do not substitute any other typestyle for use on Corps of Engineers signs.

Helvetica Bold: The wide stroke width of this letter-style creates a distinctive looking sign with simplicity. The bold letter-forms are ideally suited for signs with short legends. This typeface is used for the primary and secondary legends on identification, recreation area, industrial safety and parking signs.

**ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890(\$?!&-—"’.,;:)**

Helvetica Medium: This medium weight letter-style is used for all roadway and recreation area directional sign legends. This type is ideally suited for signs viewed from a moving vehicle. Its 5:1 letter height to stroke width ratio and large, open, lower case letters make it a very legible typeface. The Helvetica Medium typestyle should not be used on signs where the Helvetica Regular or Helvetica Bold typefaces are used.

**ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890(\$?!&-—"’.,;:)**

Helvetica Regular: This is a thin stroke letter-style used for selected secondary legends on signs with Helvetica Bold primary legends, such as interpretive signs, construction project signs, and boundary signs. Helvetica Regular is also the typeface used for all interior signs.

**ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890(\$?!&-—"’.,;:)**

Designed in 1957 by Edourd Hoffman and Max Miedinger, the Helvetica family of type is registered and copyrighted by the Haas type foundry in Switzerland. Use only versions of this typeface family that have been prepared from Haas originals and licensed for use by Haas on the typesetting method used. Many unauthorized versions exist. Some differ only minutely from the authorized versions. In others, the letter-forms are distorted enough

to cause a significant difference in the length of words and, consequently, in panel length. In addition, many versions are not as legible, nor visually pleasing as the correct one.

For this reason, a list of typesetting systems that use the authorized Helvetica typefaces is supplied on page D.1. When purchasing signs from suppliers not on the approved Corps list, verify that they use one of the acceptable systems.

The demonstrations below illustrate how the three different weights of the Helvetica typeface are used on the various types of signs in the Corps sign program. Although each sign type has been designed for a specific purpose, the shared typographic system gives a cohesive look to these many different types of signs.

The basic sizes of these typefaces (cap-

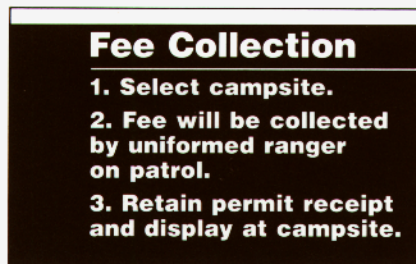
ital letter height) have been predetermined for each type of sign depending on the distance at which they will be viewed (see Viewing Distance Guide, page 2.6).

For optimum legibility, a spacing guide has been developed for each type weight (see Appendix D).

Helvetica Bold is used for all legends on Standard and Secondary Identification signs.



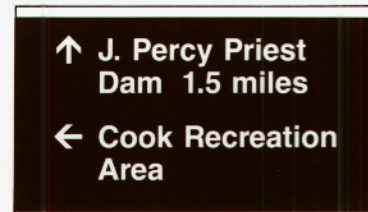
Helvetica Bold is used for all legends on recreation signs and as the support legends for Prohibition Symbol and Area Regulation signs.



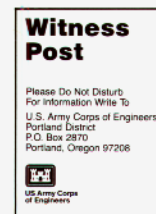
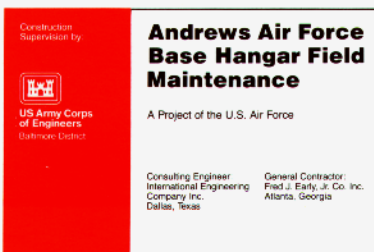
Helvetica Bold is used for all legends on industrial safety signs and for support legends on Parking/No Parking signs.



Helvetica Medium is used for all directional and waterway signs.



Helvetica Regular is used with Helvetica Bold on Construction Project signs and Witness Post markers.



Proper letter-spacing is critical to the legibility of a sign. Individual letters spaced too closely will cause them to run together, making it difficult to read the word. If the space between letters is too great, it is difficult to distinguish words. For this reason, letter-spacing standards have been established for all Corps signs. A list of typesetting systems that conform to Corps standards is in Appendix D.

In cases where typesetting systems that meet the Corps standards are not available, legends can be prepared using the manual letter-spacing guide described in Appendix D. This guide, while elementary, is extremely accurate.

For reference purposes, a display of commonly used words is provided in Appendix D (pages D.18-28). These words can be used to prepare legends or to verify the type and letter-spacing provided by a fabricator.

For more information on letter-spacing, consult your District/Division sign coordinator.

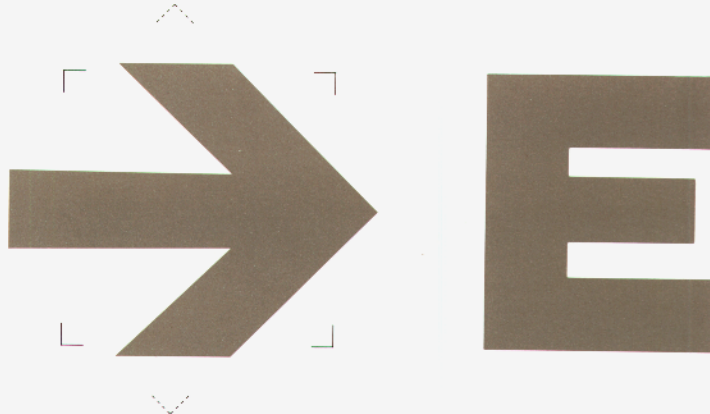
The three arrows shown below are for use on Corps signs, one for each of the Helvetica typefaces. Each arrow has been designed to be legible and, at the same time, compatible with its respective typeface.

Arrows may be placed in the directions shown. Position straight-up and left-directed arrows to the left of the legend.

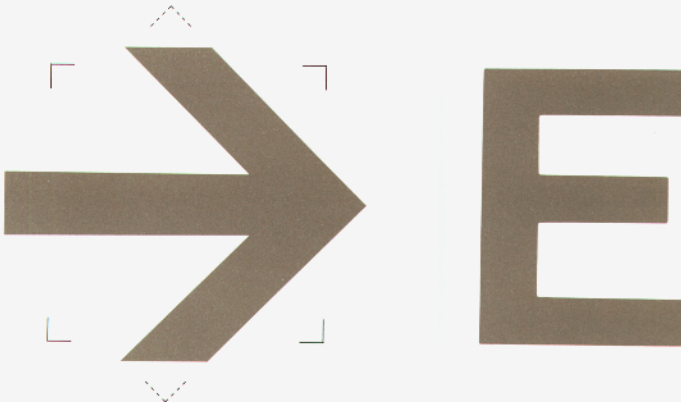
Place right-directed arrows to the right of the legend.

On signs with numerous destinations, a single arrow may be placed above a group of destinations with common direction. Arrows which are so placed will be in a flush left position, regardless of arrow direction.

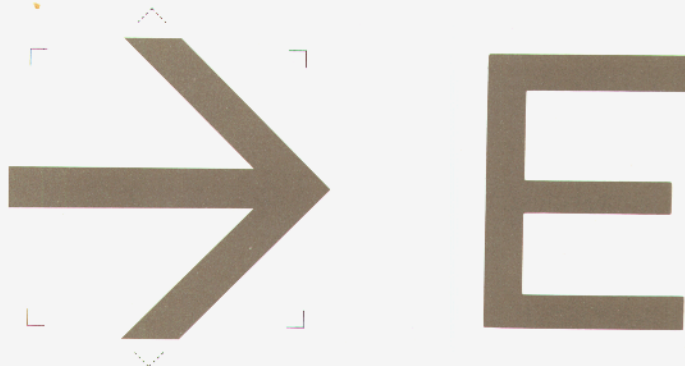
Helvetica Bold Arrow
reproduction art, p. F.140



Helvetica Medium Arrow
reproduction art, p. F.141



Helvetica Regular Arrow
reproduction art, p. F.142



Panel illustrates arrow alignment for the five different directions in which arrows may be placed on signs.

